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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,415	02/05/2002	Mattia De Dominicis	108910-00051	4132

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ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
Suite 600
1050 Connecticut Avenue, N.W.
Washington, DC 20036-5339

EXAMINER

TUROCZY, DAVID P

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/062,415

Applicant(s)

DE DOMINICIS ET AL.

Examiner

David Turocy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,6,7,11,18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5, 8-10, 12-17, and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/10/02, 6/21/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The applicant's amendments, filed 10/24/2005, have been fully considered and reviewed by the examiner. The examiner notes the amendment to claim 1. Claims 1-20 remain pending with claims 3, 4, 6, 7, 11, 18, and 19 withdrawn because of an election requirement.

Response to Arguments

2. Applicant's arguments filed 10/24/2005 have been fully considered but they are not persuasive.

The applicant has argued against the Visca reference stating the reference teaches of applying the perfluoropolymer to a metallic surface to confer water/oil repellency and such a characteristic is not analogous to anticalcar properties. While the examiner agrees Visca is directed to providing a metallic surface with water and/or oil repellency, the examiner maintains the position that both the prior art of Visca and the present claims require the same process steps. The prior art and the present claims, reflected by claim 1, teach all the same process steps and thus the results obtained by applicants process must necessarily be the same as those obtained by the prior art.

Therefore by applying a bifunctional polyfluoropolyether phosphoric ester compound to a metal substrate, it must necessarily result in conferring anticalcar properties. Either 1) the applicant and the prior art have different definitions for applying to a metal substrate

a bifunctional polyfluoropolyether phosphoric ester compound, or 2) the applicant is using other process steps or parameters that are not shown in the claims.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., abrasive system) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-2, 5, 8-9, 12-17, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 requires easy removal of the calcar deposits in the preamble, but no calcar deposits exist on the metallic substrate. It is unclear from the process steps as written whether the calcar deposits exist on the metal surface prior to the deposition of the perfluoropolyether or whether the application of the perfluoropolyether occurs prior to deposition of the calcar. In other words, the preamble requires the removal of calcar, but there is no recitation of calcar existing on the substrate. For the purposes of applying prior art the examiner will interpret the claim as discussed on page 9 of the disclosure, i.e. the metal substrate is treated with perfluoropolyether and the calcar

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- deposits onto the substrate when contact with water and the calcar is easy removed by
- washing with running water flow at room temperature.

Claim 1 recites the limitation "the calcar deposit" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 10 is rejected under 35 U.S.C. 102(b) as being anticipated by EP 1006168 by Visca et al, hereafter Visca.

Claim 10: Visca teaches applying a bifunctional polyfluoropolyether phosphoric ester compound to the surface of various substrates, including metal (Abstract, Paragraph 0007). Visca discloses using a compound, see formula III and specifically example 3, that corresponds to the elected species (B) (Paragraph 0011, 0043). Visca teaches of providing metal substrate with water repellency characteristics, which results in conferring a certain amount of anti-corrosive properties (Abstract).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-2, 5, 8-9, 12-17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Visca in view of JP 09-272736 by Hiromi et al., hereafter Hiromi and further in view of JP 03193976 A by Nakanishi et al., hereafter Nakanishi.

Claim 1: Visca teaches applying a bifunctional polyfluoropolyether phosphoric ester compound to the surface of various substrates, including metal, to impart the surface with water and/or oil repellency (Abstract, Paragraph 0007). Visca discloses using a compound, see formula III and specifically example 3, that corresponds to the

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elected species (B) (Paragraph 0011, 0043). Visca clearly discloses contacting the surface with flowing water, due to the water repellency properties.

Claims 2, and 12-17: The bifunctional polyfluoropolyether phosphoric ester compound as disclosed by example 3 meets all the limitations of these claims.

Claim 5, 8-9 and 20: Visca discloses applying a 2% by weight bifunctional polyfluoropolyether phosphoric ester compound in a mixture of water/isopropanol by brushing (Paragraph 0043).

Visca does not explicitly disclose easy removal of calcar deposits on a metallic substrate.

However, Hiromi, teaching of a similar phosphate modified bifunctional polyfluoropolymer, discloses fluorine-containing compounds provide water repellency, oil repellency, antifouling properties, and non-adhesiveness (0002). Hiromi discloses the application of the polyfluoropolymer onto the metallic surface as well as various other surfaces (0026).

Therefore, the references taken collectively reasonable suggest to one of ordinary skill in the art that the bifunctional polyfluoropolyether phosphoric ester compound as taught by Visca will provide the properties as disclosed by Hiromi because Hiromi teaches fluorine containing compounds and more specifically phosphate modified bifunctional polyfluoropolymer are known to be applied to metallic surface and provide various functions such as water repellency, oil repellency, antifouling properties, and non-adhesiveness.

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In addition, Nakanishi, teaching of a fluorine based coating with antifouling properties, discloses easily removing any fouling on the surface of the substrate by simple washing (abstract).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Visca in view of Hiromi to simply wash the substrate surface to effectively remove any fouling, including the claimed calcar deposits, with a reasonable expectation of success because Nakanishi discloses washing the substrate with a fluorine based polymer antifouling coating is known in the art to easily remove fouling and therefore would reasonable be expected to provide the same benefit for the process of Visca in view of Hiromi.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Turocy
AU 1762



TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER